Comparisons of Job Characteristics

Focus Occupation: Computer Software Engineers, Applications (15-1031)
Associated Occupation: Network and Computer Systems Administrators (15-1071)

Compare Knowledge
Compare Skills
Compare Abilities
Compare Detailed Work Activities
Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge — Similarity of Focus Occupation to Associated Occupation: 86

Focus Occupation: Computer Software Engineers, Applications (15-1031)
Associated Occupation: Network and Computer Systems Administrators (15-1071)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Computers and Electronics	8.4	21.5	23.8	>	Current knowledge level is likely sufficient
Telecommunications	3.9	13.4	4.2	<<	Extensive education and/or training may be required
Administration and Management	8.4	11.8	6.0	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills — Similarity of Focus Occupation to Associated Occupation: 66

Focus Occupation: Computer Software Engineers, Applications (15-1031)
Associated Occupation: Network and Computer Systems Administrators (15-1071)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Complex Problem Solving	9.1	12.2	14.1	>	Skill level is likely sufficient
Systems Analysis	6.5	11.1	13.3	>	Skill level is likely sufficient
Systems Evaluation	6.4	11.0	13.4	>	Skill level is likely sufficient
Quality Control Analysis	5.9	9.8	9.6	0	Current skill level may be sufficient
Programming	2.2	8.5	14.6	>>	Skill level is likely more than sufficient
Technology Design	2.6	6.5	10.3	>>	Skill level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities — Similarity of Focus Occupation to Associated Occupation: 96

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Information Ordering	9.9	11.8	11.6	0	Current ability level may be sufficient
Category Flexibility	9.0	10.7	11.1	0	Current ability level may be sufficient
Flexibility of Closure	7.8	10.2	9.1	<	Some improvement in abilities may be required
Fluency of Ideas	7.6	10.1	11.9	>	Current ability level is likely sufficient
Selective Attention	8.7	9.9	10.5	0	Current ability level may be sufficient
Perceptual Speed	7.4	9.0	8.5	0	Current ability level may be sufficient
Speed of Closure	5.9	7.7	8.1	0	Current ability level may be sufficient
Memorization	5.6	7.3	6.8	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 75

Focus Occupation: Computer Software Engineers, Applications (15-1031)
Associated Occupation: Network and Computer Systems Administrators (15-1071)

Work Activities	Exclusivity of Activity
Adjust computer operation system	84
Communicate technical information	4
Evaluate computer system user requests or requirements	81
Follow data security procedures	77
Revise or correct errors in computer programs, software, or systems	85
Test computer programs or systems	78
Use computers to enter, access or retrieve data	3
Use spreadsheet software	18

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 88

Focus Occupation: Computer Software Engineers, Applications (15-1031)
Associated Occupation: Network and Computer Systems Administrators (15-1071)

Tools and Technologies	Exclusivity
Business function specific software	1
Computers	1

Content authoring and editing software	1
Data management and query software	1
Development software	4
Electronic and communication measuring and testing instruments	14
Industry specific software	1
Network applications software	1
Networking software	21
Operating environment software	12
Security and protection software	30
Utility and device driver software	17

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.